# 2007-08 VIRGINIA WILD TURKEY STATUS REPORT

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## Population Status

Virginia's turkey population was estimated to be approximately 150,000 birds in the spring of 2008, based on the assumption that 10% of the population is harvested in the spring gobbler season. Virginia's turkey population growth rate has been essentially stable (-0.1%) over the past 10 years based on spring gobbler harvests. Turkey populations have stabilized in most (n=8) other Northeast states or provinces although 4 are still increasing and 1 is declining (Table 1). Population densities in Virginia are intermediate to most Northeast states and provinces. The highest densities are found in Pennsylvania and New Jersey (Table 1).

Turkey populations in Virginia appeared to peak in 2002 and have stabilized over the past 6 years. The turkey population appeared to increase in 2006 following a good hatch in 2004. However, the increase has not been sustained as recruitment in recent years has been poor. Turkey observations by archers in Virginia suggest a relatively stable population in recent years (Fig. 1) although archers did see more turkeys in the 2007 early deer archery season.

Turkey population densities and trends are not uniform across the state. Densities were categorized into 5 categories (very low, low, moderate, high, and very high) based on a cluster analyses of harvest per square mile of forest range. The harvest data were then analyzed for trends and were categorized as either increasing, stable, or declining (Table 3). There are 51 counties with very low or low densities (<0.68 gobblers killed $mi^2$ forest range) that are stable or declining (Fig. 2). There were 11 counties with gobbler harvests that exceeded 1.0 birds per square mile of forest range. Most of those counties were stable, but 2 were still increasing. Statewide population density estimates were 0.60 (spring gobbler kill/sq. mi. forest range) in 2008. The Tidewater region had the highest density estimate, 0.80 gobblers killed per square mile of forest range.

Productivity was estimated by brood reports and ratios of juveniles per adult female in the fall harvest. The 2007 productivity index was 1.7 (juveniles per adult female in the fall harvest), which suggests poor production. Production has averaged 2.2 juveniles per adult female in the all harvest over the past 10 years. Recruitment has been poor in 7 of the last 10 years (Table 5). Productivity appears to be declining over time and could be indicative of density-dependent effects on reproduction. Recruitment varied by region and ranged from 1.2 in the Tidewater to 2.7 in the North Piedmont Region.

## Harvest

*Spring.*--Virginia's 2008 spring gobbler kill (15,037) was 7% higher than the previous season. More birds (9,840) were killed in counties east of the Blue Ridge Mountains (EBR) than in western

counties (WBR; 5,197). EBR harvest increased 7% while WBR harvest increased 6%. Poor weather during the 2007 spring gobbler season may have resulted in below-average harvest rates. Recruitment in 2006 was below-average so the 2-year old age class was likely under-represented in the 2008 spring harvest. The increase in the 2008 spring kill is believed to be more related to the poor weather in the 2007 spring gobbler season and lower spring harvest rates that resulted in a good carry-over of adult males into the 2008 spring season.

Recent hunter surveys suggest Virginia has between 60,000 and 70,000 spring gobbler hunters (Table 6). From our hunter survey we estimate approximately 25% of our spring hunters are successful taking a gobbler.

*Fall.*--Virginia's 2007-08 fall season harvest was 4,759 birds, which represented a 15% increase over the previous season. The harvest increased more in counties WBR (24%) than in counties EBR (9%). The increase in the 2007-08 fall harvest could be due to relatively poor acorn production which may have increased fall harvest rates (Table 8). Fall hunter numbers appear to have stabilized around 50,000 hunters based on random surveys of 2% of big game license buyers (Table 7). Fall hunter success rates declined sharply from 27% in 2004 and has remained fairly constant (15%) since then (Table 7). Harvest estimates based on hunter surveys suggest a total harvest approximately 2 times greater than mandatory harvest numbers.

Fall turkey harvests have declined 9.8 percent annually over the past 10 years in Virginia. This trend is similar to other states in the Mid-Atlantic including West Virginia (-7.1%) and Pennsylvania (-6.5%). Within the Northeast Region 4 states have a declining fall harvest trend, 3 are stable and 1 is increasing (Table 2).

To help understand the potential causes of the decline in fall harvests in Virginia, we conducted a stepwise regression analyses with the number of fall hunters, fall hunter daily success rates, fall hunter success rates, ratio of juveniles to adults in the fall harvest, and the spring kill as potential explanatory variables. Three variables with an R-square of 0.96 were found to be significant. The number of fall hunters, daily fall hunter success rates, and the percentage of successful fall hunters were related to the decline in the fall harvest.

Harvest of adult female wild turkeys is disproportionably high in the last week of the late segment of the fall season. In recent years 25% of adult female wild turkeys were harvested in the last week of the season in counties (Table 9). The proportion of adult females taken during the last week of the season was higher (33%) in counties with the long deer season (Table 10) than counties with the short deer season (16%, Table 11).

## Research and Management Activities

The fall turkey season was shifted forward 1 week in counties EBR in an effort to reduce the legal kill of adult females. Many of the counties in the region have low turkey densities and this effort may increase adult female survival and could help production and population densities.

The telemetry phase of the Mid-Atlantic Gobbler Study has been completed in Virginia. West Virginia continued the study for a 4$^{th}$ year. Preliminary results of the AIC modeling effort are available and final results will be forth-coming with the culmination of the 4$^{th}$ WV field season

Table 1. Wild turkey spring harvest densities and trends in the Northeast Region, 1999-2008

| State | Spring Kill/Mi$^2$ | 10-Year Growth Rate | P Value | Status[1] |
|---|---|---|---|---|
| Connecticut | 0.57 | -2.6 | 0.058 | Stable |
| Maine | 0.40 | 20.7 | 0.001 | Increasing |
| Maryland | 0.70 | 3.9 | 0.195 | Stable |
| Massachusetts | 0.59 | 1.6 | 0.081 | Stable |
| New Hampshire | 0.55 | 11.0 | 0.001 | Increasing |
| New Jersey | 1.14 | 1.8 | 0.174 | Stable |
| New York | 0.29 | -1.0 | 0.521 | Stable |
| Ontario | 0.92 | 21.4 | 0.001 | Increasing |
| Pennsylvania | 1.34 | -0.7 | 0.574 | Stable |
| Rhode Island | 0.41 | 2.8 | 0.236 | Stable |
| Vermont | 0.80 | 4.5 | 0.006 | Increasing |
| Virginia | 0.60 | -0.1 | 0.962 | Stable |
| West Virginia | 0.54 | -7.0 | 0.064 | Declining |

Status[1] = Trends with P>0.10 were considered not significant and therefore stable. Significant (P<0.1) trends with growth rates higher than 3% were considered increasing while those less than -3% were considered decreasing.

Table 2. Wild turkey fall harvest densities and trends in the Northeast Region, 1998-2007.

| State | Fall Kill/Mi$^2$ | 10-Year Trend | P Value | Status[1] |
|---|---|---|---|---|
| Connecticut | 0.06 | -4.4 | 0.277 | Stable |
| Massachusetts | 0.05 | -6.5 | 0.129 | Stable |
| New Hampshire | 0.06 | 16.4 | 0.006 | Increasing |
| New York | 0.11 | -11.0 | 0.004 | Declining |
| Pennsylvania | 0.85 | -6.5 | 0.006 | Declining |
| Vermont | 0.15 | 0.8 | 0.870 | Stable |
| Virginia | 0.19 | -9.8 | 0.001 | Declining |
| West Virginia | 0.08 | -7.1 | 0.095 | Declining |

Status[1] = Trends with P>0.10 were considered not significant and therefore stable. Significant (P<0.1) trends with growth rates higher than 3% were considered increasing while those less than -3% were considered decreasing.

Table 3. Virginia wild turkey population densities and trends, 1999-2008.

| Density[1] | County | Spring Kill/Mi$^2$ | 10-Year Growth Trend | Status[2] |
|---|---|---|---|---|
| Very Low | Fairfax | 0.02 | 17.1 | Stable |
| | Virginia Beach | 0.03 | 14.3 | Increasing |
| | Chesapeake | 0.03 | 32.9 | Increasing |
| | Greene | 0.11 | -5.0 | Decreasing |
| | Hampton | 0.15 | 20.9 | Increasing |
| | Prince William | 0.20 | -2.5 | Stable |
| | | | | |
| Low | Spotsylvania | 0.23 | 5.3 | Increasing |
| | Buckingham | 0.26 | -1.6 | Stable |
| | Rockingham | 0.27 | 0.4 | Stable |
| | Highland | 0.29 | -4.9 | Stable |
| | Albemarle | 0.30 | -4.2 | Decreasing |
| | Rappahannock | 0.30 | -2.6 | Stable |
| | Orange | 0.31 | -0.1 | Stable |
| | Bath | 0.31 | -6.4 | Decreasing |
| | Augusta | 0.33 | -1.0 | Stable |
| | Dickenson | 0.33 | -6.7 | Decreasing |
| | Page | 0.35 | 1.4 | Stable |
| | Caroline | 0.36 | -0.3 | Stable |
| | Buchanan | 0.36 | -5.2 | Declining |
| | Chesterfield | 0.36 | -6.1 | Stable |
| | Stafford | 0.36 | -4.2 | Stable |
| | Henrico | 0.38 | 0.2 | Stable |
| | Hanover | 0.39 | -3.9 | Decreasing |
| | Wise | 0.39 | -3.9 | Decreasing |
| | Nelson | 0.40 | -4.0 | Decreasing |
| | Warren | 0.40 | 4.6 | Increasing |
| | Alleghany | 0.42 | -2.6 | Stable |
| | Louisa | 0.44 | -1.8 | Stable |
| | James City | 0.44 | -3.0 | Stable |
| | Brunswick | 0.45 | 3.8 | Stable |
| | Smyth | 0.45 | 1.1 | Stable |
| | Madison | 0.45 | -1.5 | Stable |
| | Fluvana | 0.46 | -5.2 | Decreasing |
| | Lunenburg | 0.46 | 1.4 | Stable |
| | Appomattox | 0.47 | -0.3 | Stable |

Density[1] = 5 categories based on cluster analyses.
Status[2]= Trends that were not statistically significant ($P>0.1$) were considered stable. Counties with significant trends ($P<0.1$) and rates that exceeded 3 percent growth were considered increasing. Decreasing counties had significant growth rates below -3.0%.

Table 4 (continued). Virginia wild turkey population densities and trends, 1999-2008.

| Density[1] | County | Spring Kill/Mi[2] | 10-Year Growth Trend | Status[2] |
|---|---|---|---|---|
| Low (continued) | Goochland | 0.49 | -0.6 | Stable |
| | Fauquier | 0.50 | 1.1 | Stable |
| | King William | 0.50 | -5.1 | Decreasing |
| | Nottoway | 0.51 | 2.4 | Stable |
| | Culpeper | 0.51 | -3.0 | Stable |
| | Russell | 0.51 | -3.1 | Decreasing |
| | Washington | 0.52 | 4.5 | Increasing |
| | Mecklenburg | 0.53 | 0.1 | Stable |
| | Greensville | 0.54 | 1.3 | Stable |
| | Tazewell | 0.55 | -.2.5 | Stable |
| | Clarke | 0.58 | 3.4 | Stable |
| | Amherst | 0.59 | -2.7 | Stable |
| | Roanoke | 0.60 | 1.5 | Stable |
| | King George | 0.60 | -5.6 | Stable |
| | New Kent | 0.61 | -1.9 | Stable |
| | Charlotte | 0.61 | -1.9 | Stable |
| | Suffolk | 0.63 | 15.2 | Increasing |
| | Cumberland | 0.64 | 0.3 | Stable |
| | Halifax | 0.65 | 0.7 | Stable |
| | Rockbridge | 0.65 | 0.7 | Stable |
| | Dinwiddie | 0.65 | 6.3 | Increasing |
| | Powhatan | 0.66 | -1.3 | Stable |
| | Henry | 0.66 | 7.9 | Increasing |
| | Shenandoah | 0.67 | 4.8 | Increasing |
| | Prince Edward | 0.67 | -0.9 | Stable |
| | Scott | 0.68 | -2.5 | Stable |
| | | | | |
| Moderate | Bland | 0.70 | 2.3 | Stable |
| | Lee | 0.71 | 0.3 | Stable |
| | Patrick | 0.73 | 0.0 | Stable |
| | Charles City | 0.74 | -3.2 | Stable |
| | King and Queen | 0.76 | -1.7 | Stable |
| | Sussex | 0.78 | 4.4 | Increasing |
| | Gloucester | 0.79 | -3.3 | Stable |
| | Craig | 0.79 | 2.9 | Stable |
| | Campbell | 0.79 | 1.2 | Stable |

Density[1] = 5 categories based on cluster analyses.
Status[2]= Trends that were not statistically significant (P>0.1) were considered stable. Counties with significant trends (P<0.1) and rates that exceeded 3 percent growth were considered increasing. Decreasing counties had significant growth rates below -3.0%.

Table 4 (continued). Virginia wild turkey population densities and trends, 1999-2008.

| Density[1] | County | Spring Kill/Mi[2] | 10-Year Growth Trend | Status[2] |
|---|---|---|---|---|
| Moderate | Montgomery | 0.80 | 2.2 | Stable |
| (Continued) | Pittsylvania | 0.80 | 0.9 | Stable |
| | Frederick | 0.81 | 4.1 | Increasing |
| | Amelia | 0.81 | 0.2 | Stable |
| | Botetourt | 0.81 | 0.0 | Stable |
| | Accomack | 0.82 | 8.2 | Increasing |
| | Essex | 0.82 | -0.8 | Stable |
| | Prince George | 0.83 | 3.7 | Stable |
| | Pulaski | 0.84 | 2.4 | Stable |
| | Carroll | 0.88 | -0.1 | Stable |
| | Giles | 0.88 | 1.5 | Stable |
| | Loudoun | 0.91 | 0.8 | Stable |
| | York | 0.91 | 5.6 | Stable |
| | Middlesex | 0.93 | -4.7 | Decreasing |
| | Floyd | 0.98 | -0.4 | Stable |
| | Grayson | 0.99 | -2.6 | Stable |
| | Southampton | 0.99 | 6.0 | Increasing |
| | Franklin | 1.00 | -0.7 | Stable |
| | Surry | 1.02 | 6.3 | Increasing |
| | | | | |
| High | Mathews | 1.09 | -2.0 | Stable |
| | Isle of Wight | 1.14 | 4.6 | Increasing |
| | Wythe | 1.15 | 3.3 | Stable |
| | Richmond | 1.17 | -1.6 | Stable |
| | Bedford | 1.17 | -2.4 | Stable |
| | Lancaster | 1.27 | -2.1 | Stable |
| | Westmoreland | 1.37 | -2.6 | Stable |
| | Northumberland | 1.50 | -3.4 | Stable |
| | | | | |
| Very High | Northampton | 1.82 | 6.4 | Increasing |
| | | | | |
| | | | | |
| | | | | |
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| | | | | |

Density[1] = 5 categories based on cluster analyses.
Status[2]= Trends that were not statistically significant (P>0.1) were considered stable. Counties with significant trends (P<0.1) and rates that exceeded 3 percent growth were considered increasing. Decreasing counties had significant growth rates below -3.0%.

Table 5. Annual and averaged annual poult/adult hen ratios determined from feathers of harvested birds. Annual and averaged annual poult/adult hen ratios determined from feathers of harvested birds.

| | Region | | | | | |
|---|---|---|---|---|---|---|
| Year | North. Mountain | South Mountain | North Piedmont | South Piedmont | Tidewater | State |
| 1979 | 8.8 | 3.5 | 4.4 | 4.6 | 3.6 | 4.9 |
| 1980 | 7.8 | 4.1 | 3.7 | 3.8 | 5.0 | 4.5 |
| 1981 | 6.9 | 4.2 | 4.2 | 3.5 | 6.5 | 4.6 |
| 1982 | 5.4 | 1.8 | 4.0 | 5.5 | 3.0 | 3.6 |
| 1983 | 3.8 | 2.6 | 4.0 | 3.2 | 2.0 | 3.1 |
| 1984 | 4.6 | 4.2 | 2.6 | 2.8 | 1.5 | 3.3 |
| 1985 | 4.3 | 4.7 | 2.7 | 3.2 | 3.0 | 3.6 |
| 1986 | 2.9 | 6.1 | 3.7 | 3.8 | 3.8 | 3.9 |
| 1987 | 4.6 | 3.5 | 3.5 | 4.6 | 3.4 | 4.0 |
| 1988 | 3.1 | 4.9 | 3.2 | 3.7 | 1.9 | 3.6 |
| 1989 | 3.2 | 5.3 | 3.0 | 4.8 | 3.6 | 4.2 |
| 1990 | 2.9 | 2.8 | 2.4 | 2.0 | 1.9 | 2.4 |
| 1991 | 4.2 | 3.7 | 3.1 | 5.3 | 1.5 | 3.6 |
| 1992 | 2.9 | 2.7 | 3.2 | 2.0 | 1.4 | 2.4 |
| 1993 | 3.3 | 7.7 | 3.2 | 3.2 | 1.9 | 3.9 |
| 1994 | 6.2 | 3.2 | 2.4 | 3.5 | 3.5 | 3.5 |
| 1995 | 4.8 | 3.2 | 2.5 | 3.1 | 1.6 | 3.1 |
| 1996 | 3.2 | 3.2 | 3.0 | 2.5 | 2.1 | 2.9 |
| 1997 | 2.0 | 2.4 | 1.4 | 1.9 | 1.1 | 1.9 |
| 1998 | 2.0 | 1.9 | 1.6 | 1.7 | 1.7 | 1.8 |
| 1999 | 4.4 | 3.7 | 1.6 | 2.4 | 1.9 | 2.8 |
| 2000 | 3.1 | 3.0 | 2.1 | 3.5 | 2.7 | 3.0 |
| 2001 | 3.3 | 3.0 | 1.7 | 1.9 | 1.4 | 2.2 |
| 2002 | 2.0 | 1.7 | 0.8 | 1.2 | 1.6 | 1.4 |
| 2003 | 2.3 | 2.4 | 1.0 | 2.0 | 1.0 | 2.0 |
| 2004 | 3.0 | 3.4 | 3.0 | 2.8 | 3.7 | 3.1 |
| 2005 | 2.2 | 1.6 | 1.6 | 2.3 | 0.9 | 1.9 |
| 2006 | 2.2 | 2.5 | 2.0 | 1.4 | 0.8 | 1.8 |
| 2007 | 1.4 | 1.9 | 2.7 | 1.5 | 1.2 | 1.7 |
| Averages | | | | | | |
| 28–year | 3.8 | 3.4 | 2.7 | 3.0 | 2.4 | 3.1 |
| 10–year | 2.6 | 2.5 | 1.8 | 2.1 | 1.7 | 2.2 |
| 5–year | 2.2 | 2.4 | 2.1 | 2.0 | 1.5 | 2.1 |

Table 6. Spring gobbler hunting statistics from Virginia hunter survey.

| Year | Spring Hunters | Mean Daily Kill | Percent Successful | Hunter Satisfaction Rating (1-7)* | Harvest from Hunter Survey |
|---|---|---|---|---|---|
| 1993 | 43,005 | 0.038 | 21.1 | | 15,512 |
| 1994 | 59,171 | 0.039 | 20.3 | | 16,842 |
| 1995 | 62,865 | 0.047 | 22.2 | 4.16 | 18,761 |
| 1996 | 68,137 | 0.049 | 23.8 | 4.43 | 20,322 |
| 1997 | 68,824 | 0.045 | 20.4 | 4.07 | 18,989 |
| 1998 | 65,598 | 0.053 | 23.7 | 4.29 | 21,186 |
| 1999 | 62,776 | 0.051 | 22.0 | 4.00 | 19,666 |
| 2000 | 63,544 | 0.054 | 23.4 | 4.02 | 20,842 |
| 2002 | 60,834 | 0.063 | 26.6 | 4.29 | 22,609 |
| 2004 | 73,114 | 0.075 | 25.4 | 4.16 | 25,366 |
| 2005 | 57,785 | 0.057 | 26.3 | NA | 21,453 |
| 2006 | 63,703 | 0.064 | 26.6 | 4.14 | 24,810 |
| 2007 | 69,731 | 0.061 | 24.5 | 3.93 | 26,977 |

* Ratings range from 1 (lowest) to 7 (highest).

Table 7. Fall turkey hunting statistics from Virginia hunter survey.

| Year | Fall Hunters | Mean Daily Kill | Percent Successful | Hunter Satisfaction Rating (1-7)* | Harvest from Hunter Survey |
|---|---|---|---|---|---|
| 1993 | 105,762 | 0.027 | 18.2 | 3.92 | 27,099 |
| 1994 | 101,421 | 0.046 | 22.8 | 3.66 | 33,737 |
| 1995 | 89,932 | 0.051 | 21.8 | 3.89 | 26,778 |
| 1996 | 86,005 | 0.060 | 26.1 | 3.73 | 30,343 |
| 1997 | 81,120 | 0.064 | 24.4 | 4.08 | 28,437 |
| 1998 | 79,972 | 0.057 | 22.5 | 3.80 | 24,782 |
| 1999 | 76,452 | 0.053 | 19.4 | 3.80 | 18,936 |
| 2001 | 63,976 | 0.078 | 27.0 | 3.93 | 23,617 |
| 2004 | 63,239 | 0.052 | 16.3 | 3.77 | 14,192 |
| 2005 | 47,609 | 0.036 | 15.5 | 3.54 | 10,896 |
| 2006 | 50,702 | 0.044 | 15.0 | 3.46 | 11,441 |

* Ratings range from 1 (lowest) to 7 (highest).

Table 8. Statewide average mast ratings[1] in Virginia rated by Foresters with Virginia Department of Forestry.

| Year | Red Oak | White Oak | Chestnut Oak | Beech | Grape | Dogwood |
|---|---|---|---|---|---|---|
| 1992 | 1.46 | 1.32 | 1.50 | 1.46 | 1.67 | 1.89 |
| 1993 | 2.03 | 1.72 | 1.83 | 1.58 | 1.80 | 2.06 |
| 1994 | 2.11 | 2.29 | 2.51 | 2.09 | 2.05 | 2.34 |
| 1995 | 1.74 | 1.49 | 1.84 | 1.68 | 1.92 | 2.46 |
| 1996 | 2.10 | 2.17 | 2.22 | 1.83 | 2.35 | 2.08 |
| 1997 | 1.56 | 1.30 | 1.49 | 1.38 | 1.60 | 1.92 |
| 1998 | 1.59 | 1.97 | 2.11 | 1.84 | 2.02 | 1.85 |
| 1999 | 1.77 | 2.03 | 2.04 | 1.57 | 2.35 | 2.05 |
| 2000 | 2.20 | 2.15 | 2.09 | 2.20 | 2.21 | 2.59 |
| 2001 | 1.59 | 1.28 | 1.33 | 1.33 | 1.88 | 2.07 |
| 2002 | 1.86 | 2.26 | 2.30 | 1.60 | 1.58 | 2.09 |
| 2003 | 1.50 | 1.58 | 1.73 | 1.73 | 2.00 | 2.06 |
| 2004 | 1.89 | 2.19 | 2.22 | 1.35 | 2.18 | 2.0 |
| 2005 | 1.96 | 1.49 | 1.84 | 1.93 | 1.78 | 2.16 |
| 2006 | 2.02 | 2.29 | 2.37 | 1.74 | 1.84 | 2.13 |
| 2007 | 1.54 | 1.49 | 1.68 | 1.35 | 1.71 | 1.96 |
| Average | 1.81 | 1.81 | 1.94 | 1.67 | 1.93 | 2.11 |

[1] Mast rating: 1 = light, 2 = moderate, 3 = heavy.

Table 9. Statewide harvest (%) of adult female wild turkey by periods.

| Year | Bow | Week 1 | Week 2 | Turkey Day | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|---|---|
| 1999 | 2 | 18 | 10 | 6 | 11 | 11 | 11 | 31 |
| 2000 | 1 | 19 | 16 | 7 | 9 | 8 | 16 | 24 |
| 2001 | 1 | 19 | 14 | 5 | 12 | 12 | 18 | 19 |
| 2002 | 1 | 10 | 15 | 7 | 12 | 12 | 18 | 25 |
| 2003 | 3 | 16 | 14 | 7 | 14 | 9 | 15 | 23 |
| 2004 | 2 | 14 | 10 | 8 | 9 | 15 | 9 | 34 |
| 2005 | 2 | 13 | 13 | 9 | 14 | 12 | 13 | 24 |
| 2006 | 3 | 14 | 10 | 7 | 12 | 11 | 20 | 22 |
| 2007 | 4 | 14 | 10 | 10 | 15 | 11 | 14 | 21 |
| AVG. | 2 | 15 | 12 | 7 | 12 | 11 | 15 | 25 |

Table 10. Harvest (%) of adult female wild turkey by period in counties with the long firearms deer season

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| Year | Bow | Week 1 | Week 2 | Turkey Day | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|---|---|
| 1999 | 1 | 15 | 9 | 5 | 9 | 12 | 11 | 38 |
| 2000 | 1 | 12 | 14 | 8 | 10 | 7 | 20 | 29 |
| 2001 | 2 | 12 | 14 | 5 | 15 | 12 | 19 | 22 |
| 2002 | 1 | 3 | 10 | 4 | 12 | 13 | 21 | 35 |
| 2003 | 1 | 9 | 9 | 7 | 11 | 9 | 18 | 36 |
| 2004 | 2 | 9 | 9 | 5 | 7 | 15 | 9 | 45 |
| 2005 | 3 | 9 | 7 | 7 | 14 | 12 | 17 | 31 |
| 2006 | 1 | 9 | 7 | 4 | 13 | 15 | 23 | 28 |
| 2007 | 3 | 12 | 7 | 9 | 11 | 10 | 20 | 29 |
| AVG. | 2 | 10 | 10 | 6 | 11 | 12 | 18 | 33 |

Table 11. Harvest (%) of adult female wild turkeys by period in counties with the short firearms deer season.

| Year | Bow | Week 1 | Week 2 | Turkey Day | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|---|---|
| 1999 | 5 | 28 | 12 | 6 | 13 | 8 | 9 | 19 |
| 2000 | 2 | 29 | 19 | 5 | 9 | 10 | 10 | 17 |
| 2001 | 1 | 31 | 15 | 6 | 9 | 10 | 15 | 13 |
| 2002 | 2 | 17 | 20 | 11 | 11 | 11 | 14 | 14 |
| 2003 | 5 | 23 | 18 | 6 | 15 | 10 | 12 | 10 |
| 2004 | 2 | 20 | 12 | 11 | 10 | 14 | 9 | 22 |
| 2005 | 0 | 16 | 21 | 13 | 15 | 12 | 8 | 15 |
| 2006 | 7 | 20 | 14 | 12 | 11 | 6 | 12 | 18 |
| 2007 | 5 | 15 | 13 | 11 | 19 | 13 | 9 | 15 |
| AVG. | 3 | 22 | 16 | 9 | 12 | 10 | 11 | 16 |

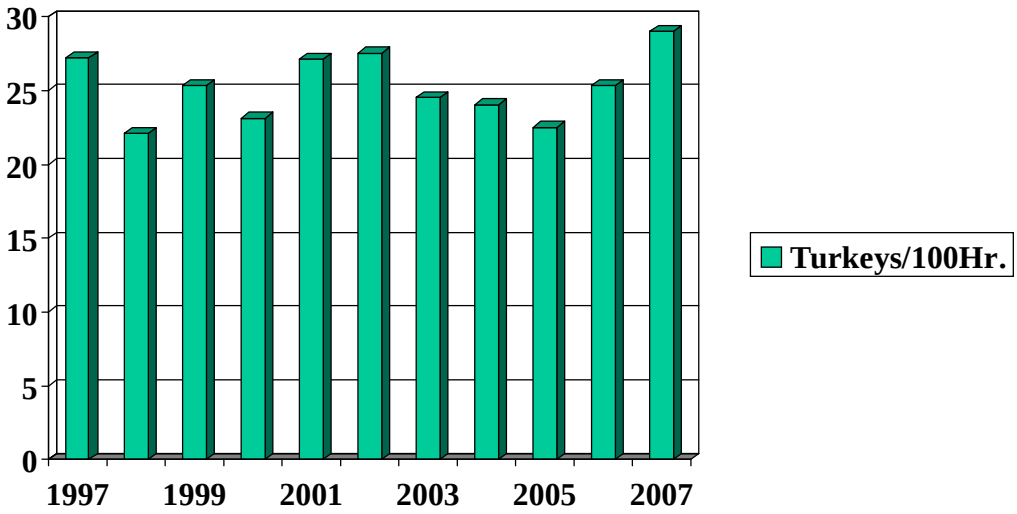


Fig. 1. Wild turkeys reported by bowhunters in Virginia.

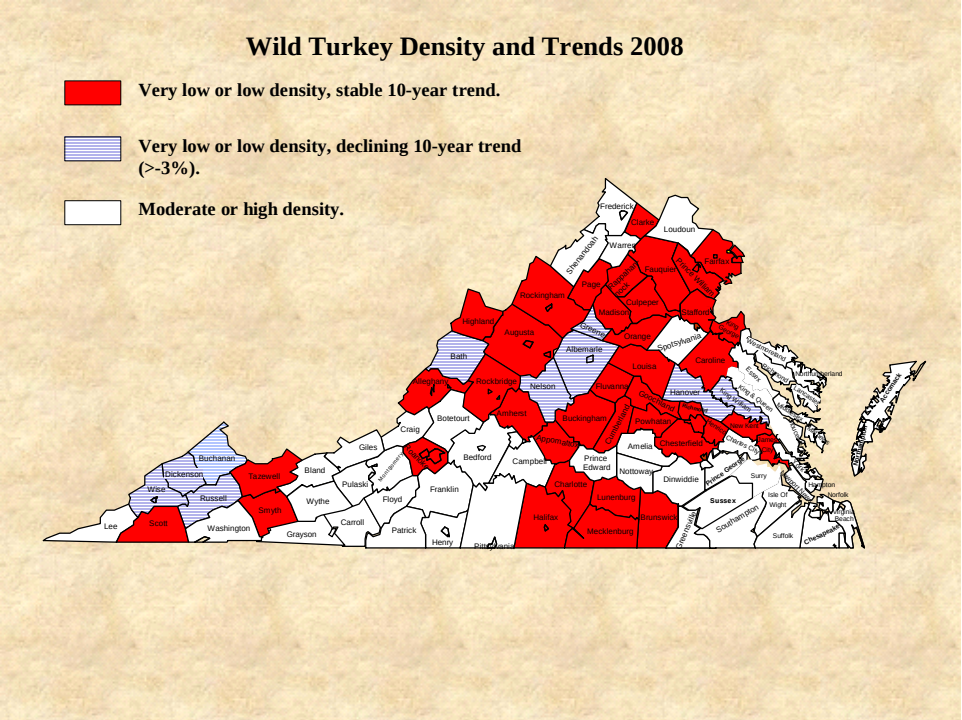


Fig. 2. Virginia counties with very low densities that are either declining, stable, or increasing based on 2008 spring gobbler harvest densities.